

AMENDMENTS TO THE CLAIMS:

Applicant respectfully requests that this listing of claims replace the prior versions, and listings, of claims in the application.

1. (Previously presented) A processor-based method comprising:

operating a communications module that facilitates operating system-level synchronization between cellular modem software and application engine software that are both running concurrently on an apparatus;

invoking from the communications module a generic function in response to a service request from the application engine software, wherein the generic function comprises at least one of a request function and a response function directed to the cellular modem software;

transforming the generic function to a specific function of the cellular modem software;
and

invoking the specific function of the cellular modem software.

2. (Previously presented) The method of Claim 1, further comprising:

sending a specific reply of the cellular modem software targeted for the communications module in response to the specific function, wherein the specific reply comprises at least one of a confirm function and an indication function targeted to the application engine software;

transforming the specific reply to a generic reply; and

sending the generic reply from the communications module to invoke a method of the application engine software.

3. (Original) The method of Claim 1, wherein the communications module comprises a telephony module.

4. (Original) The method of Claim 1, wherein the application engine software includes the Symbian operating system.

5. (Previously presented) The method of Claim 4, wherein the communications module comprises a Telephony Server Module (TSY) compatible with a Symbian Telephony Server (ETEL).

6. (Original) The method of Claim 1, wherein invoking from the communications module the generic function comprises forming one or more abstract primitives based on the generic function.

7. (Original) The method of Claim 6, wherein transforming the generic function to the specific function of the cellular modem software comprises forming one or more concrete primitives that inherit characteristics from the one or more abstract primitives to form the specific function.

8. (Previously presented) A processor-based method comprising:

operating a communications module that facilitates operating system-level synchronization between cellular modem software and application engine software that are both running concurrently on an apparatus;

invoking from the cellular modem software a specific function targeted for the application engine software in response to a hardware event, wherein the specific function comprises at least one of a confirm function and an indication function;

transforming the specific function to a generic function of the communications module;
and

invoking a method of the application engine software via the generic function of the communications module.

9. (Original) The method of Claim 8, further comprising:

sending in response to the method of the application engine software a generic reply of the communications module targeted for the cellular modem software;

transforming the generic reply to a specific reply of the cellular modem software; and
sending the specific reply to the cellular modem software.

10. (Original) The method of Claim 8, wherein the communications module comprises a telephony module.

11. (Original) The method of Claim 8, wherein the application engine software includes the Symbian operating system.

12. (Previously presented) The method of Claim 11, wherein the communications module comprises a Telephony Server Module (TSY) compatible with a Symbian Telephony Server (ETEL).

13. (Original) The method of Claim 8, wherein invoking from the cellular modem software the specific function comprises forming the specific function from one or more concrete primitives associated with the cellular modem software.

14. (Original) The method of Claim 13, wherein the concrete primitives inherit characteristics from one or more abstract primitives, and wherein transforming the specific function to the generic function of the communications module comprises forming the generic function from the one or more abstract primitives.

15. (Previously presented) A computer-usable medium configured with stored instructions for causing one or more processors of a data processing arrangement to facilitate operating system-level synchronization between concurrently running cellular modem software and application engine software by performing:

invoking a generic function of a communications module of the data processing arrangement in response to a service request from the application engine software, wherein the generic function comprises at least one of a request function and a response function directed to the cellular modem software;

transforming the generic function to a specific function of the cellular modem software;
and
invoking the specific function of the cellular modem software.

16. (Original) The computer-usable medium of Claim 15, wherein the communications module comprises a telephony module.

17. (Previously presented) The computer-usable medium of Claim 15, wherein the communications module comprises a Telephony Server Module (TSY) compatible with a Symbian Telephony Server (ETEL).

18. (Original) The computer-usable medium of Claim 15, wherein invoking from the communications module the generic function comprises forming one or more abstract primitives based on the generic function.

19. (Original) The computer-usable medium of Claim 18, wherein transforming the generic function to the specific function of the cellular modem software comprises forming one or more concrete primitives that inherit characteristics from the one or more abstract primitives to form the specific function.

20. (Previously presented) A computer-usable medium configured with stored instructions for causing a processor of a data processing arrangement to facilitate operating system-level synchronization between cellular modem software and application engine software to by performing:

invoking from the cellular modem software a specific function in response to a hardware event targeted for the application engine software, wherein the specific function comprises at least one of a confirm and an indication function;

transforming the specific function to a generic function of a communications module of the data processing arrangement; and

invoking a method of the application engine software via the generic function of the communications module.

21. (Previously presented) The computer-usable medium of Claim 20, wherein the communications module comprises a telephony module.

22. (Previously presented) The computer-usable medium of Claim 20, wherein the communications module comprises a Telephony Server Module (TSY) compatible with a Symbian Telephony Server (ETEL).

23. (Previously presented) The computer-usable medium of Claim 20, wherein invoking from the cellular modem software the specific function comprises forming the specific function from one or more concrete primitives associated with the cellular modem software.

24. (Previously presented) The computer-usable medium of Claim 23, wherein the concrete primitives inherit characteristics from one or more abstract primitives, and wherein transforming the specific function to the generic function of the communications module comprises forming the generic function from the one or more abstract primitives.

25. (Currently amended) An apparatus comprising:

a memory storing a communications module; and

one or more processors coupled to the memory and operable by cellular modem software and application engine software, the processors operable by the communications module to process operating system-level synchronization communications between the ~~the~~ cellular modem software and the application engine software by performing:

processing generic functions of the communications module to communicate with the application engine software, wherein the generic functions comprise at least one of request and response functions directed to the cellular modem software, and confirm and indication functions directed to the application engine software;

processing specific functions of the cellular modem software to communicate with the cellular modem software; and

translating between generic functions of the communications module and specific functions of the cellular modem software to facilitate communications therebetween.

26. (Previously presented) The apparatus of Claim 25, wherein the communications module comprises a telephony module.

27. (Previously presented) The apparatus of Claim 25, wherein the communications module comprises a Telephony Server Module (TSY) compatible with a Symbian Telephony Server (ETEL).

28. (Previously presented) The apparatus of Claim 25, wherein translating between generic functions of the communications module and specific functions of the cellular modem software comprises basing the generic functions on one or more abstract primitives and basing the specific functions on one or more concrete primitives associated with the cellular modem software, the concrete primitives inheriting characteristics from the abstract primitives.

29. (Previously presented) An apparatus comprising:

means for operating cellular modem software and application engine software on the apparatus;

means for processing operating system-level synchronization communications between the application engine software and the cellular modem software via a communications module of the apparatus;

means for processing generic functions of the communications module to communicate with the application engine software, wherein the generic functions comprise at least one of: request and response functions directed to the cellular modem software, and confirm and indication functions directed to the application engine software;

means for processing specific functions of the cellular modem software to communicate with the cellular modem software; and

means for translating between generic functions of the communications module and specific functions of the cellular modem software to facilitate communications therebetween.